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10/684,488	10/15/2003	Ryota Tsukidate	041-2057B	3499

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EXAMINER
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ONUAKU, CHRISTOPHER O

ART UNIT	PAPER NUMBER
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2621

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/684,488

Applicant(s)

TSUKIDATE, RYOTA

Examiner

Christopher Onuaku

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-12,14-25,27-32 and 34-41 is/are rejected.
- 7) ☒ Claim(s) 6,13,26 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/15/03&amp;1/6/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3,7,8,11,14-20,23,27,28,31,34-37&39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmons et al (US 6,266,814) in view of Yuen et al (US 5,488,409).

Regarding claim 1, Lemmons et al disclose interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying a restrictive search selection criterion and a nonrestrictive sort attribute to program schedule information, comprising at least one transmitter (see Fig.1; satellite transmitter 58; col.6, lines 27-41), and a plurality of terminals (see Fig.1; set-top box 70; col.6, lines 51-60), wherein each transmitter broadcasts a data stream, a plurality of channels being multiplexed into each data stream, each channel comprising a plurality of programs (see col.6, lines 51-60), and

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whnerein each transmitter includes, in the data stream, program information comprising program information (PI) records associated with respective programs available in the broadcasting system (see col.6, lines 7-41), here the program information reads on program schedule information which is shown in Fig.3; col.8, lines 55-65), comprising the method of :

a) permitting a user to select a desired one of the programs and adding the selected program to a recording queue which keeps program-identifying data sets in order of broadcast time (see col.20, lines 23-41);

b) recording on the recording medium a program identified by one of the program-identifying data sets in a first position of the recording queue (see col.20, lines 23-31; Fig.3 and col.9, lines 3-18 for information on program identifying data);

c) recording a program information record of the recorded program in a predetermined area on the recording medium (see Fig.2, and memory 76; col.7, lines 28-33).

Lemmons et al fail to explicitly disclose the method steps wherein in response to reception of a playing request from the user, displaying a program guide for the recorded programs recorded on the recording medium, prompting the user to select one of the programs for play, and in response to the user selecting the one of the recorded programs, playing the selected recorded program to provide video and/or audio outputs.

Yuen et al teach apparatus and methods for facilitating and monitoring the management, storage and retrieval of programs on a cassette of magnetic tape comprising enhance tape that allows a user to select a program from the directory

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screen for playback by inserting the corresponding number of the programs displayed on the first column, for example, of the enhanced screen and then pressing the "PLAY" key to play the selected recorded program (see Fig.34(a)&(c); col.46, lines 3-13; col.46, line 64 to col.47, line 2, and col.47, lines 30-45).

The process of, in response to reception of a playing request from the user, displaying a program guide for the recorded programs recorded on the recording medium, prompting the user to select one of the programs for play, and in response to the user selecting the one of the recorded programs, playing the selected recorded programs to provide video and/or audio outputs, provides the desirable advantage of simplifying the selecting and playing of recorded programs, thereby enhancing the interactive program guide systems.

It would have been obvious to modify Lemmons by realizing Lemmons with the method for, in response to reception of a playing request from the user, displaying a program guide for the recorded programs recorded on the recording medium, prompting the user to select one of the programs for play, and in response to the user selecting the one of the recorded programs, playing the selected recorded programs to provide video and/or audio outputs, as taught by Yuen, since this provides the desirable advantage of simplifying the selecting and playing of recorded programs, thereby enhancing the interactive program guide systems.

Regarding claim 2, Yuen further teaches the method steps of at least one transmitter optionally including broadcast schedules for programs relating to each

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program in the program information, wherein if there are any broadcast schedules for related programs relating to the recorded programs, the program guide includes the broadcast schedule (see col.36, line 62 to col.37, line 18), wherein the prompting step includes permitting the user to select one of the related programs, and wherein the method further includes the step of, in response to the user selecting one of the related programs, each terminal adding the selected related program to the recording queue (see col.38, lines 57-63):

Regarding claim 3, Yuen further teaches the method step of the at least one transmitter optionally including a recommended program list relating to a program or a channel in the program information, wherein the displaying step includes displaying recommended program information relating to the recorded programs and to channels including the recorded programs, and wherein the permitting the user to select one of the related programs includes permitting the user to select one of the related programs and programs included in the recommended program information (see col.37, line 66 to col.38, line 46), the PLUSCODE™ numbers include the program information such as channel, date, length and time, and the category guide menu includes program listing for the selected program category.

Regarding claim 7, Yuen discloses the method step wherein said including said broadcast schedules for related programs includes including only broadcast schedules for related programs that have not yet been broadcast (see col.36, lines 02-67).

Regarding claim 8, Yuen discloses the method step wherein if there are any broadcast schedules for related programs relating to the recorded programs, the program guide includes only broadcast schedules for related programs related programs which relates to the recorded programs and which have not yet been broadcast (see col.36, lines 62-67).

Regarding claim 11, Yuen further teaches the method step wherein the recording medium is a removable disc medium (see col.21, lines 61-65 and col.63, lines 1-6), here Yuen teaches using a floppy disk in a disk drive as a backup storage for storing directory information, and also storing collected viewer habit data on a floppy disk in a disk drive. It would have been obvious to store video programs on a floppy disk in a disk drive, as a back storage means, for example.

Regarding claim 14, Yuen further discloses the method steps of when a recording medium is recorded for the first time, recording a medium ID unique to the recording medium at a predetermined location in the predetermined area of the recording medium (see col.13, lines 7-11 and col.13, lines 20-34); including, in said PI record of each of recorded programs of recording media that have been recorded by the terminal, the medium ID of a recording medium storing the recorded program (it is pertinent to point out that tape ID recorded within the tape obviously facilitates the identification of the programs recorded in the tape, since to identify any of the programs recorded in the tape, the tape itself has to be identified); including, in the PI record of

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each of the recorded programs of recording media that have been recorded by the terminal, a recorded program ID unique to the program (see col.8, lines 40-48 and col.11, lines 54-67); storing, in a storage device, all of the PI records for the recorded programs of recording media that have been recorded by the terminal (see Fig.1 and RAM 33 wherein the directory information of Fig.2&3 is stored); and permitting the user to retrieve a desired program (see col.3, lines 48-58).

Regarding claim 15, Yuen further teaches the method step wherein the recording media is a removable disk (see col.21, lines 61-65); wherein the method further includes the steps of, each time of loading the disc media, updating relevant records stored in the storage device (see col.6, lines 11-15 and col.17, line 65 to col.18, line 8).

Regarding claim 16, the claimed limitations of claim 16 are accommodated in the discussions of claims 14&15 above, including the steps of at a time of accessing a neighborhood of the predetermined area, copying the PI records of programs recorded on the recording medium which are stored in the storage device to said predetermined area of the recording medium (see col.21, lines 61-65); and wherein the step of displaying a program guide uses the records stored in the storage device (see col.22, lines 12-19 and col. 1, lines 11-45).

Regarding claim 17, Yuen further teaches the method step wherein the step of recording a program includes the step of recording the program and the program ID in

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time-division multiplexing (see claims 12&14, where the medium ID reads on the PI records); the medium ID being recorded in a raised frequency, wherein the method further includes the step of, at a time of loading the medium, obtaining the medium ID by winding the tape in either direction (see col. 13, lines 20-34); and wherein the step of displaying a program guide includes the step of reading the PI records stored in the storage device by using the obtained medium ID (see col.22, lines 12-19 and col.36, lines 11-45).

Regarding claim 18, the claimed limitations of claim 18 are accommodated in the discussions of claim 1 above.

Regarding claim 19, the claimed limitations of claim 19 are accommodated in the discussions of claim 2 above.

Regarding claim 20, the claimed limitations claim 20 are accommodated in the discussions of claims 18&19 above.

Regarding claim 23, the claimed limitations of claim 23 are accommodated in the discussions of claim 3 above.

Regarding claim 27, the claimed limitations of claim 27 are accommodated in the discussions of claim 7 above.

Regarding claim 28, the claimed limitations of claim 28 are accommodated in the discussions of claim 8 above.

Regarding claim 31, the claimed limitations of claim 31 are accommodated in the discussions of claim 11 above.

Regarding claim 34, the claimed limitations of claim 34 are accommodated in the discussions of claim 14 above.

Regarding claim 35, the claimed limitations of claim 35 are accommodated in the discussions of claim 15 above.

Regarding claim 36, the claimed limitations of claim 36 are accommodated in the discussions of claim 16 above.

Regarding claim 37, the claimed limitations of claim 37 are accommodated in the discussions of claim 17 above.

Regarding claim 39, the claimed limitations of claim 39 are accommodated in the discussions of claim 1 above, including reproducing means (see at least the abstract of Yuen).

discussions of claim 1 above, including reproducing means (see at least, the abstract of Yuen)

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3. Claims 4,5,12,24,25&32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmons et al in view of Yuen et al and further in view of Na et al (US 6,366,731).

Regarding claim 4, Yuen further teaches the method wherein the step of permitting a user to select a desired one of the programs includes the step of permitting a user to select such a program as is to be broadcast concurrently with at least one program which is registered in the recording queue and which is included in a same data stream that includes such said program, wherein the recording step includes the steps of extracting such said program and said at least one program from said same data stream (see col.38, line 51 to col.39, line 6). Lemmons and Yuen fail to explicitly disclose the method step of and converting said such program and said at least one program into a time-division multiplexed packet stream in a same form as said data stream, and recording the time-division multiplexed packet stream on the recording media. Na et al teach a multi-media system in which a plurality of digital A/V apparatuses are connected to each other via a digital interface, wherein the received video data information, audio data information and user data information corresponding to a plurality of programs which are time-division multiplexed into one MIPEG2 transport stream are received and recorded in a recording tape (see Fig.3 and col.4, lines 45-65 and col.7, lines 7-36). Time-division multiplexing and recording programs provides the desirable advantage of simplifying, for example, program selection process during the recording function.

It would have been obvious modify Lemmons by realizing Lemmons means to time-division multiplex the Lemmons programs, as taught by Na et al, since this provides the desirable advantage of simplifying, for example, program selection process during the recording function.

Regarding claim 5, the claimed limitations of claim 5 are accommodated in the discussions of claim 4 above, including wherein the user selects one of video channels and one of audio channels, and the video and audio channels constituting the desired program since the time-division multiplexed program information of Na et al includes both the audio and video information.

Regarding claim 12, Yuen further teaches the method step wherein the recording medium is removable tape medium (see Fig.1 and vide tape cassette 40; col.5, lines 23-39).

Lemmons and Yuen fail to disclose the method step wherein the step of recording a program includes the recording of program and the PI record associated with the program in time-division multiplexing. As discussed in claim 4 above, Na et al teach wherein the received video data information, audio data information and user data information corresponding to a plurality of programs *which* are time-division multiplexed into one MPEG2 transport stream are received and recorded in a recording tape, wherein the MPEG2-TS includes PSI, and wherein the MPEG2-TS is recorded on a tape recording means ( see Fig.3 and col.4, lines 45-65 and col.7, lines 7-36).

Regarding claim 24, the claimed limitation of claim 24 are accommodated in the discussions of claim 4 above.

Regarding claim 25, the claimed limitations of claim 25 are accommodated in the discussions of claim 5 above.

Regarding claim 32, the claimed limitations of claim 32 are accommodated in the discussions of claim 12 above.

4. Claims 9,10,29,30,38&40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmons et al in view of Yuen et al and further in view of Dunn et al (US 5,861,906).

Regarding claim 9, Yuen further teaches the method steps of the transmitter including, in the PI record of each of programs, a code (see UPC number) indicative of whether the program is for rental, and if the program is for rental, the user selecting a recorded program with an indication of rental (see col.25, lines 49-55). It would have been obvious to modify Lemmons by realizing Lemmons with video rental means, as taught by Yuen, in order that Lemmons can provide video rental outlet.

Lemmons and Yuen fail to explicitly disclose a center telephone number in a video rental terminal (shop). Official Notice is taken that video rental terminals (shops) do have telephone numbers in order that potential video renters can conduct inquiries about renting video from the rental terminal (shop). It would have been obvious to further modify Lemmons by realizing Lemmons with a central telephone number in the video rental terminal of Lemmons in order that potential video renters can conduct

inquiries about renting videos from the terminal.

Furthermore, Lemmons and Yuen fail to explicitly disclose the method step of the terminal permitting the user to apply for a rent of the selected recorded program, including a limit value determined by the application in the PI record of the selected recorded program, and only if the limit value is not reached, permitting an executing of the playing step.

In a similar field of endeavor, Dunn et al teach an interactive entertainment network system which has a video-on-demand (VOD) application which allows viewers to create their own customized lists of preferred video contents such as movies, games, TV shows, and so on, comprising a headend which will transmit rented video content program any time the viewer requests it, so long as the rental period associated with that movie has not lapsed. When a rented movie has rental period of 48 hours, for example, a viewer can play the movie until that rental period is reached. Upon the expiration of that rental period, the headend will refuse to transmit the program unless the viewer once again orders it.

Limiting the rental period of a movie in a video rental provides the desirable advantage of controlling and monitoring the rental of movies, for example, in a video rental terminal (store). It would have been obvious to further modify Lemmons by realizing Lemmons with the means to limit the rental of a selected program, a movie, for example, as taught by Dunn, since this provides the desirable advantage of controlling and monitoring the rental of movies, for example, in a video rental terminal.

Regarding claim 10, Yuen further teaches the method step of the transmitter transmitting label information for use in printing label to be put on the recording medium, and printing at least a part of the label information on a label (see col.21, lines 31-40 and

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col.52, lines 57-60)), here, Yuen teaches wherein the microprocessor controller 31 commands the printer to print the tape identification number labels for marking the cassette housing. It would have been obvious to print label information to be put on a recording medium, for example, in order to satisfy this particular desired printing requirement. And, it would have been obvious for the transmitter to transmit the printed label in order, for example, to satisfy a particular desired transmission requirement.

Regarding claim 29, the claimed limitations of claim 29 are accommodated in the discussions of claim 9 above.

Regarding claim 30, the claimed limitations of claim 30 are accommodated in the discussions of claim 10 above.

Regarding claim 38, the claimed limitations of claim 38 are accommodated in the discussions of claim 9 above.

Regarding claim 40, the claimed limitations of claim 40 are accommodated in the discussions of claims 9&39 above.

5. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmons et al in view of Yuen et al and Dunn et al and further in view of Na et al.

Regarding claim 41, the claimed limitations of claim 41 are accommodated in the discussions of claims 12&40 above..

6. Claims 21&22 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Lemmons et al in view of Yuen et al and further in view of Ishii et al (US 5,361,173).

Regarding claim 21, Lemmons and Yuen fail to disclose the method step wherein the related programs are serialized programs. Ishii et al teach a recording and reproducing apparatus applicable in electronic devices for consumer use such as video tape recorder for recording and reproducing a program, wherein programs are recorded with serial numbers, and wherein during the reproduction process, the programs with the serial numbers recorded sequentially can be reproduced (see col.12, lines 21-28).

Recording programs with serial numbers provides an alternative method of identifying recorded programs, for example.

It would have been obvious to further modify Lemmons by realizing Lemmons with the means to record programs with serial numbers, as taught by Ishii, since this provides an alternative way of identifying recorded programs.

Regarding claim 22, the claimed limitations of claim 22 are accommodated in the discussions of claim 21 above.

### ***Allowable Subject Matter***

7. Claims 6,13,26&33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reason- for the indication of allowable subject matter:

Regarding claim 6, the invention relates to a multimedia recorder with

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recorded program management functions based on EPG data, a TV receiver provided with such recorder, and a system for supporting such functions in a broadcasting equipment.

The closest references Lemmons et al (US 6,266,814) disclose interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying restrictive search selection criterion and a nonrestrictive sort attribute to program schedule information, and Yuen et al (US 5,488,409) teach apparatus and methods for facilitating and monitoring the management, storage and retrieval of programs on a cassette of magnetic tape.

However, Lemmons and Yuen fail to explicitly disclose a method of managing recorded programs recorded in a recording medium in a broadcasting system, where the method further comprises the step of each transmitter including, in the PI record of each of programs that varies in its channel configuration in a middle of duration thereof, time periods for respective channel configurations of the program and a channel configuration for each of the time period, each channel configuration indicating the video and audio channels that constitute the program for a time period associated with the each channel configuration, wherein the step of permitting a user and the displaying step includes the step of displaying the time periods and corresponding channel configurations, and wherein the selecting one of video channels and one of audio channels includes selecting, for each time period, a video and audio channel from a channel configuration associated with the

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time period.

Regarding claim 13, the invention relate to a multimedia recorder with recorded program management functions based on EPG data, a TV receiver provided with such recorder, and a system for supporting such functions in a broadcasting equipment.

The closest references Lemmons et al (US 6,266,814) disclose interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying restrictive search selection criterion and a nonrestrictive sort attribute to program schedule information, and Yuen et al (US 5,488,409) teach apparatus and methods for facilitating and monitoring the management, storage and retrieval of programs on a cassette of magnetic tape.

However, Lemmons and Yuen fail to explicitly disclose a method of managing recorded programs recorded in a recording medium in a broadcasting system, where the method further comprises wherein the step of recording the program and PI record including the steps of adjusting a recording frequency of the PI record according to a possible maximum recording rate minus a transmission rate required for the program.

Regarding claim 26, the invention relate to a multimedia recorder with recorded program management functions based on EPG data, a TV

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receiver provided with such recorder, and a system for supporting such functions in a broadcasting equipment.

The closest references Lemmons et al (US 6,266,814) disclose interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying restrictive search selection criterion and a nonrestrictive sort attribute to program schedule information, and Yuen et al (US 5,488,409) teach apparatus and methods for facilitating and monitoring the management, storage and retrieval of programs on a cassette of magnetic tape.

However, Lemmons and Yuen fail to explicit disclose a multimedia terminal capable of managing recorded programs recorded in a recording medium in a broadcasting system, where the multimedia terminal further comprises wherein the PI record of each of programs that varies in its channel configuration in a middle of duration thereof includes time periods for respective channel configurations of the program and a channel configuration for each of the time period, each channel configuration indicating the video and audio channels that constitute the program for a time period associated with the each channel configuration, wherein the means for permitting a user and the displaying means includes the means for displaying the time periods and corresponding channel configurations, and wherein the means for permitting a user to select one of video channels and one of audio channels include, means for selecting, for each time period, a video and an audio channel from a channel configuration associated with the time period.

Regarding claim 33, the invention relate to a multimedia recorder with recorded program management functions based on EPG data, a TV receiver provided with such recorder, and a system for supporting such functions in a broadcasting equipment.

The closest references Lemmons et al (US 6,266,814) disclose interactive television program guide systems and related processes that provide an intuitive search utility for allowing a viewer to locate programs of interest by applying restrictive search selection criterion and a nonrestrictive sort attribute to program schedule information, and Yuen et al (US 5,488,409) teach apparatus and methods for facilitating and monitoring the management, storage and retrieval of programs on a cassette of magnetic tape.

However, Lemmons and Yuen fail to explicitly disclose a multimedia terminal capable of managing recorded programs recorded in a recording medium in a broadcasting system, where the multimedia terminal further comprises wherein the means for recording the program and PI record including the means for adjusting a recording of the PI record according to a possible maximum recording rate minus a transmission rate required for the program.

### ***Conclusion***


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Onuaku whose telephone number is 571-272-7379. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on 571-272-7950. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
COO  
2/12/07

  
**James J. Groody**  
**Supervisory Patent Examiner**  
**Art Unit 262 2621**